

ing in one of the streets of Dundee, in conversation with his medical attendant, darkness suddenly supervened, in the same manner as formerly, unaccompanied by uneasiness in the head, or any other symptom of bodily ailment. In the following August, his sight began to return; and betwixt that date and May, 1855, when he applied at the Eye Infirmary, the same alternation of blindness and restored vision had taken place four or five times. On this occasion, May 14, his sight was nearly at its worst, having suddenly departed, five days before, in the usual way, without any conceivable cause or accompanying symptom. The eye presented all the characters of health, unless, perhaps, the pupil was slightly larger than usual; but the latter contracted and expanded readily under various degrees of light, and the iris had all the brilliancy of perfect freedom from disease. The cornea was transparent, and the sclerotic devoid of vascularity. No appearance could be detected within the eye to throw any suspicion on the retina, choroid, or hyaloid membrane, and the globe maintained its normal consistence.

Although there were no very clear indications for treatment, a single grain of blue pill was prescribed night and morning.

On the 20th of August, he could read with perfect facility, and at any reasonable distance, the smallest print on our patient's card, and this improvement continued on the 10th of September. Next day, he came back as blind as ever—a sudden accession of darkness having occurred in the evening, as he sat by the fire. Up to the present time (October 9), little improvement has taken place. He mentions that, when lying on his back, there is a sensation as if some dark matter gathered on the surface, while, in the erect posture, it seems to become, as it were, stirred up, more generally diffused, and less dense, so that he can see the outlines of familiar objects indistinctly, as if he were looking through a hedge.

It may be expected that the ophthalmoscope would throw some light on the pathology of this and analogous cases. It was had recourse to; but, possibly from want of expertness in using it, we failed to obtain any information. When a double convex lens does not, as in this case, reveal any abnormal appearance behind the pupil, we doubt much if supposed revelations of the ophthalmoscope are worthy of confidence, not to mention the manifest danger, as acknowledged by Mr. Dickson and others, of concentrating luminous rays upon inflamed or congested textures.

We would suggest that the cause of amaurosis in the foregoing case is external to the eye itself, and probably, in some portion of the nervous or cerebral substance, associated with vision.

The following case is not without interest, in connection with these remarks:—

A lady, 42 years of age, while stooping to adjust the hearth-rug, perceived a sudden shower of sparks before her left eye, and immediately lost all power of vision, except a mere perception of light towards the outer side. This continued for more than twelve years, until one morning, on awakening out of sleep, she was agreeably surprised to find her sight restored. She had experienced a curious sensation, the evening before, in the back part of her head; but when the writer of this called after breakfast, she was sitting up in bed reading a newspaper with facility. Shortly afterwards, her stomach became irritable, she had bilious retching, lost all appetite for food, and died exhausted within a month from the time of regaining her vision. No *post-mortem* examination took place.

MIDWIFERY.

59. *Placenta Prævia*.—Dr. RADFORD records (*Assoc. Med. Journ.*, February 2 and 16, 1856) the following interesting cases of *placenta prævia*:—

CASE I.—On June 24th, 1820, I was requested by Mr. Dick to visit a woman who resided in Greengate, Salford, who was reported to be flooding; she was

in labour of her third child, and had a profuse discharge of blood. I found she had previously flooded twice, at intervals of about three weeks; but each of these attacks was comparatively trifling. There was no obvious cause for them; and on the patient being put to bed, the discharge soon began to diminish, and required no further measures besides rest in the recumbent position.

The present flow had abated when I arrived; but it was, and had been, increased on the accession of pain. On making an examination, I found the os uteri dilated to about the size of a crown-piece; it was soft and dilatable; a small portion of the placenta with the membranes was felt tightened during the pain, but hanging loosely over the os when it (the pain) subsided. The head of the child was easily touched, as the uterus acted briskly and effectively; and as the discharge of blood was now comparatively trifling, it was thought prudent not to interfere, but to leave the case to nature. In the course of two hours, the membrane ruptured; the head descended into the pelvis, pressing the separated portion of the placenta aside as it progressed, and very soon the child was born alive. The uterus contracted well; there was only an ordinary discharge; in about half an hour afterwards, the placenta was expelled. No further hemorrhage happened. The bandage placed on before delivery was now tightened. She recovered without the slightest interruption. Those portions of the placenta which had been separated previous to labour, were readily distinguished from that (the last) which caused the flooding at this time, being more consolidated and of a different colour.

CASE II.—Mrs. Buckley (on 24th March, 1821) desired me to visit a hospital patient, residing in Hanover Street, who was said to be in labour and flooding. When I arrived, I found the discharge, which at first was great, considerably abated. This was her fifth pregnancy. She had felt pains four hours, which had now become severe; during each pain, the flow of blood had been slightly increased from the commencement of the labour, but was trifling in amount until the time when I was sent for. Her pulse was, however, unaffected, and her countenance natural. The os uteri was dilated to the size of a half-crown, and felt thin and soft; through it, I found an edge of the placenta, which organ adhered to the right latero-posterior part of the cervix uteri: the distended membranes were readily perceived during the pain, and the head of the child was felt on its remission.

I remained with the patient some time, during which the pains increased in intensity and effect; the discharge of blood gradually ceased. I now left her in the charge of the midwife, with an express order to send for me again if the bleeding recurred. I heard nothing until the following day, when she called, and stated the membranes ruptured in about two hours after I left; the child was borne alive; the placenta was naturally expelled; there was no further loss than what usually takes place. The woman recovered well.

CASE III.—On February 21st, 1822, I was requested by Mrs. Bradley to visit a hospital patient residing in Cumberland Street, who was reported to be flooding. She had now arrived at the eighth month of her second pregnancy, and had been quite well up to this period. She began to flood without any known cause. Mrs. Bradley had put her to bed, and placed a bandage round her, and used cold applications. The flow of blood was said to have been profuse, but it had considerably lessened when I saw her. I examined her, and found the os uteri closed, and therefore I could not ascertain whether the placenta was situated near it or not, although I suspected it was, from feeling the cervical walls fuller and thicker than they ordinarily are at this period of pregnancy; and also, as no external cause had occurred to account for the accident.

When I left the patient, I desired Mrs. Bradley to send again for me if there was a return of the hemorrhage. I, however, heard nothing more of the case until a month had elapsed, when I was called to her to extract the placenta, which I found slightly adherent. Her labour, up to this point, had been natural and easy. The placenta was readily detached and removed, and there was no flooding. I carefully examined this organ, and readily distinguished that portion, which had been separated and caused the accident, from the rest of it; its structure had become firmly condensed, and less vascular.

CASE IV.—In June, 1830, I was requested to visit a lady, pregnant for the third time. My opinion was sought, because in her two former labours the children were born dead. She was now nearly seven months advanced; her health was good; and she said she felt the child very lively. In a fortnight after this interview I was sent for, as she was flooding. I found her on the bed, and looking pale; her pulse was rather quick and feeble. I was told she had lost a large quantity of blood. Although the bleeding was now comparatively trifling, yet it continued. She had no pain; and having placed my hand on the abdomen, I felt the uterus flaccid; I found the os uteri closed, and the cervix uneffaced. A bandage was placed round the body, and pinned tightly over the uterus. Cold water with vinegar was externally applied, and the apartment kept cool. An unstimulating diet was ordered, and quietude, in the recumbent position, strictly enjoined. Nothing further was required, as the hemorrhage gradually ceased, and did not return. She progressively improved after this accident, and she continued to feel the child to be vigorously alive. Arrived at the eighth month, it was, for a few days, felt less sensibly, and then altogether ceased to move. At this time, the breast lessened in size, and became more flaccid. About a week before the expiration of the ninth month labour came on. When I visited her, the pains, now brisk and frequent, had existed for two hours. I found the os uteri considerably dilated, soft, and yielding. The membranous bag, with a portion of the placenta, was felt; but there was not the slightest discharge of blood. The os uteri continued rapidly to dilate; the membranes ruptured; and the separated (now loose) flap of the placenta was pushed aside, and passed by the descending head. The pains being very strong and forcing, the child (dead) was soon expelled. There was not the slightest hemorrhage. The placenta was soon extruded, which, on examination, was found had lost its usual fresh vascular character; the portion which had been separated at nearly the seventh month, and then caused the flooding, was readily fixed upon.

CASE V.—The following case recently occurred to my respected friend and colleague, Mr. Skinner, who has kindly permitted me to cite it:—

On October 28th, 1855, 5 o'clock P. M., I was called by one of the midwives to attend Ann Malon, aged 23 years, who had been attacked, while in bed this morning, with hemorrhage. She is nearly at her full time, and states this is her third pregnancy, and the two previous labours were perfectly natural, and she recovered from both without a single unfavourable occurrence. Both of the children are now living.

At about the seventh month of this (the present) pregnancy, she had some slight hemorrhage while engaged in some domestic occupation; but there was nothing in the nature of this which she could assign as a cause of the flooding, which was unaccompanied by pain. At this time, she was ordered a mixture with sulphuric acid diluted, and opium, which speedily checked the dribbling discharge, which had continued. She felt the movements of the child soon afterwards. She has been free from the discharge up to my visit. On now making an examination, I found one or two small coagula of blood in the vagina; the os uteri dilated to about the size of a shilling, and I thought I detected the placenta presenting on the left latero-posterior part of this part of the uterus. She had then no pain, and, since the morning, no return of bleeding. Her pulse was tolerably good. Plumb. acet; tinct. opii; rest; cold applications to the vulva, and the room to be kept cool.

Monday, October 29. She has had no return of hemorrhage; has no pain. She slept part of the night, and has taken some gruel at intervals. On an examination, I found the os uteri in the same condition as before reported. She was this evening carefully and safely conveyed (in the horizontal position) on slings to the (St. Mary's) hospital. Ordered to take an opiate draught.

30th. No return of hemorrhage; she has had a comfortable night. She has no pain; she takes nourishment. Her pulse is good. Dr. Radford examined her with the stethoscope; he heard the fetal cardiac sounds; the placental soufflet most distinct over the left lateral portion of the cervix uteri.

November 1, 2 o'clock P. M. Labour suddenly commenced. The membranes ruptured, and a full-grown living fetus was expelled by two or three

strong pains. Mr. Runcorn (our resident apothecary) was summoned up stairs. There was not the slightest flow of blood, although Mr. Runcorn had to introduce his hand to detach the remaining large portion of placenta, which was rather firmly adherent. There was only the ordinary lochial discharge. She rapidly recovered, and was discharged cured on November 10th.

Remarks.—These cases are, in my opinion, sufficient in number to prove the fallacy of the dogmatic rule, which inculcates that active operative interference is necessary in all in which the placenta is implanted on the lower (cervical or oral) portion of the uterus.

These labours were, in the main, natural, and required only the same management as is adopted in such cases. It is true, there was an unavoidable contingent—the anomalous position of the placenta; but, fortunately, the perils which frequently happen in placenta prævia, and not only threaten the woman's safety, but sometimes destroy her, were here naturally averted.

In all these cases (and in others of similar kind which have come within my observation), the mothers survived, and all the children but one were born alive; the death of this one was not traceable to any incident which happened before or during the labour, but was to be attributed to some constitutional cause which had previously destroyed the lives of two children. Examples like these are important to warn against rashness, but ought not to lead carelessly to overlook the possibility of dangers supervening, even in cases which at first promise a propitious termination. On the contrary, we should ever be watchful, and endeavour to make them lessons to teach us to adopt, artificially in other cases, the same plan which nature has wisely pointed out in these. They afford us ample evidence that several conditional circumstances must exist, in order that a safe termination of labour, without artificial aid, may take place in cases of placenta prævia. A limited portion of the placenta must only be connected with the dilating portion of the uterus, whilst the great bulk of it (the placenta) must be placed beyond the sphere of those actions which prepare for the egress of the child. The edge of the placenta, which is usually fixed to the os uteri in such cases as the above, is usually comparatively thin, and contains fewer and lesser sized vessels than those which belong to the central portions of this organ. The degree of separation of the edges of the placenta in the above cases was small, so that the natural anti-hemorrhagic powers were equal to suppress the bleeding. The death of the child in Case IV. doubtless contributed to prevent a repetition of the flooding.

(For a more full exposition of my opinions on the subject, *vide* remarks "On the Suppression of Uterine Hemorrhage without Artificial Assistance."—*Lancet*, vol. i., 1847, p. 296.)

The soft dilatable state of the os, and the energetic action of the body and fundus uteri, which recurred in these cases, most certainly contributed, in some measure, to a happy issue.

CASE VI.—June 22, 1825, at the request of Mrs. Capper, I visited a hospital patient residing at Knott Mill. She was in her ninth month, and was flooding excessively when I saw her. She was faint; her countenance was very pallid; and her pulse feeble and fluttering. During the previous six weeks she had two attacks, for which there was no obvious cause; but the hemorrhage was comparatively slight at each of these times. The os uteri was closed and rigid, so that I could not positively ascertain whether the placenta was fixed over it; but I suspected it was. She had no pain. A bandage was now placed round the body, extending well down over the hips, and after placing a firm and large sized compress over the uterus, it was very tightly pinned, and in a way to press this organ downwards into the pelvic cavity, and thereby prevent the risk of distension from internal bleeding. I now effectually plugged the vagina with sponge. Through the centre of the first portion of this substance I passed a piece of tape twice, the ends being long enough to hang out externally for the purpose of rendering its withdrawal easy; it (the sponge) was placed against the os uteri; other sponges were successively passed, until the vagina was completely filled. A napkin, narrowly folded, was now placed over the os externum, which was kept in position by a handkerchief brought between the thighs and tightly pinned before and behind to the circular or abdominal

bandage. A draught, with one drachm of tincture of opium, was given; cool air admitted; some brandy and water was administered; and suitable support at proper intervals taken. Great attention was paid to ascertain whether there was any external discharge, but there was not the slightest appearance; and there was ample proof, from the patient's improvement, that there was no internal hemorrhage. After remaining some time, I left her.

In the evening, I found her better; no discharge of blood; had some sleep; she had not passed urine. The catheter introduced, a quantity of water was drawn away. One drachm of tincture of opium was ordered.

The next morning she was very much improved; had slept well; she expressed herself as comfortable in every respect, except from the inconvenience of the plug. I now removed the sponges, and along with the last piece some small coagula passed, but there was not the slightest appearance of fresh blood. She continued to go on favourably. At the end of a fortnight, her labour came on, and terminated without any further hemorrhage. The child was born alive.

Remarks.—The above case forcibly proves the value of the plug in arresting large discharges of blood. The portion of placenta which was separated, was of considerable size, so that when the membranes ruptured, it fell sideways, and thereby allowed the head of the child to pass, without leading to any further separation. Its organization was uninjured, or, most likely, the child would not have survived after such profuse discharge. I have minutely detailed the mode I adopted in plugging the vagina, as I feel convinced this valuable means has fallen into disrepute with some practitioners, entirely from its ineffectual application under their management.

Case VII.—April 4, 1826, I visited a lady residing in Strangeways, who was said to be in great danger from flooding. I found she was at the seventh month of her fourth pregnancy, and that a sudden discharge of blood took place whilst she was engaged in a sedentary occupation. She had fainted before my arrival, and still felt very faint; her countenance was pallid; and her lips rather blanched.

On making an examination, I ascertained, though with some difficulty, from the high position of the os uteri, that it was rigid and undilated. Although I had suspicion, yet I could not feel, that the placenta was located here. Under these circumstances, I was quite satisfied that nothing promised security to the patient, who had already lost so much blood, but effectually plugging the vagina, the application of a broad abdominal bandage, and the large uterine compress; after these measures were completed, a draught, with one drachm of tincture of opium, was given. Some brandy and water, with suitable nutritious articles of diet, as eggs, &c., were administered.

I diligently watched her for some hours, and was assured that there was neither external nor internal bleeding. During this period, she continued gradually to improve; her countenance assumed a more natural expression; her lips had a more healthy hue; her pulse improved in tone; and her surface became warm. When I left her, she was enjoined strictly to keep in the recumbent position, and observe positive quietude.

When I called again to see her, I found her, upon the whole, better than I had anticipated, although she complained of "beating" and pain in the head. She had not slept. She was anxious to have the sponges removed, having a strong desire to pass urine, although some portion of this fluid must have dribbled away. On the withdrawal of the plug, there was no fresh bleeding. A spirituous lotion to be applied to the head, and her anodyne repeated. By keeping in bed for some time, and attention to her bowels, &c., she progressively amended.

In a month afterwards, she had again a slight attack of flooding, but which was soon arrested by rest, cold vinegar and water externally applied, cool air, and an acid mixture.

In a fortnight her labour came on, accompanied with flooding, which was considerable when I reached the house. The os uteri was now dilated to about the size of a crown piece, and felt soft and dilatable. I found a large slip of the placenta crossing over it; and by carrying the finger on to the right side and further within, I perceived the membranes, and through them the head of

the child. As the pains were now frequent and strong, and the discharge continued, after placing on a regulating bandage, one end being fastened to the bed, and the other end held by the nurse, and tightened as required, I passed my hand, and first detached a considerable portion of the placenta, and then ruptured the membranes. The bandage was drawn so as equally and firmly to support and compress the uterus as its size lessened by contraction and the escape of the waters. The pains soon became stronger, and the head of the child shortly engaged itself within the os uteri, and the portion of loose placenta took a lateral position, allowing the child to pass by, and which was born alive in about three hours. The placenta, found lying loose in the vagina, was withdrawn. There was only the ordinary discharge of blood. The structure of this organ was unbroken.

Remarks.—This case is another example of the value of effectively plugging the vagina—no other expedient could have been had recourse to to save blood, and to insure a continuance of pregnancy. Forced delivery, in my judgment, was out of the question; but suppose such an operation had been rashly attempted, the lives of both the mother and the child would have been most likely sacrificed; and if the membranes had been ruptured under the existing organic state, the child's life would most likely have been lost, and there would have been no certainty of the bleeding being arrested. I detached the placenta as freely as I thought necessary for the passage of the child, as it is better systematically to do this rather than risk the tearing of the structure of this organ by the force it must sustain at each pain when the os uteri has to be dilated by the head of the child after the membranes have been ruptured.

CASE VIII.—I was sent for early in the morning, August 5, 1830, to Mrs. H., residing in Cambridge Street, Charlton-on-Medlock, who was reported to be in a dangerous state from flooding. She was in the eighth month of her third pregnancy. She was in bed; and the discharge, which had come on without any known cause, was now excessive. She was very pale and faint. On a vaginal examination, I found the os uteri closed and firm; the cervix was as near as possible effaced. I suspected the placenta was located here, but could not be certain, as it would have been hazardous to carry the finger on to search for it. Under these circumstances, I concluded to plug the vagina. A bandage was first put round the body with a large compress over the uterus, placed under it, and tightly fastened. Pieces of sponge were successively introduced until the vagina was completely filled. A retaining bandage, passed between the thighs, was now applied. She had no pains or other signs of labour. One drachm of tincture of opium was administered.

I remained with the patient for some hours, and had her duly supplied with suitable support during this time. I carefully watched her, so as to ascertain whether there was either internal or external bleeding; and felt assured all was right, as the vital powers gradually improved.

When I again visited her in the evening, I found her much improved; there had not been the slightest discharge. As she complained of the plug, and could not pass her urine, I now very cautiously withdrew the sponges, being about fourteen hours from the time they were introduced. The last piece of sponge was coated with coagulated, but there was no fresh, blood. I did not leave the patient (as is my constant practice under these circumstances) for some time afterwards. One drachm of tincture of opium was ordered.

In the morning, I found her improved; she had slept well, but she was suffering from the effects of loss of blood, pain and throbbing in the head, &c. A spirituous lotion to be applied to the head. Suitable support, with some brandy, was recommended. She was kept in the recumbent position, and these symptoms gradually diminished, and without further interruption went on to the end of her pregnancy.

On September 14, I was again called to her, being in labour, and again flooding. The pains had commenced about an hour before I was sent for, and the discharge, at first trifling, increased as the pains became stronger. The blood now flowed rapidly. I found the os uteri soft and dilatable, and already dilated to the size of a crown piece. The placenta was felt through it, and by carrying the finger on the left side (the separated) of it, I touched the membranes

and recognized the head of the child. I had now a bandage placed round the body of the patient, one end of which was firmly fixed to the mattress, whilst the other end was securely held by the nurse, which was to be gradually tightened, as I directed; the force being applied obliquely downwards. I now introduced my hand, and detached, to a considerable extent, the placenta, and afterwards ruptured the membranes. Whilst the water passed away, the bandage was drawn so as equally and firmly to press on the uterus. The pains increased in power, and soon became expulsive. On a further examination, I found a large portion of the placenta hanging through, and the head of the child just engaging in the os uteri. At this time the hemorrhage had as nearly as possible ceased. The pains increased in frequency and power, and in about two hours and a half a living child was born. The placenta soon followed, and there was no further flooding. The uterus was felt well contracted. The bandage was adjusted and pinned.

On examining the placenta, the two portions which had left the uterus were readily distinguished: that which caused the first hemorrhage was firmer, more condensed, less vascular in appearance; that which led to the second attack, as well as that which was artificially detached, was fresher, more vascular, and small clots of blood were seen in its interstitial structure. Its uterine surface was entire and unbroken. She continued to slowly recover; but only required attention to diet, regulation of the bowels, and a strict observance of the recumbent posture.

Remarks.—The plug was most effectual in arresting the discharge, and doubtless enabled the patient safely to complete her pregnancy. In detaching the placenta, I carefully avoided lacerating its texture, and separated, as far as I could judge from its connection with the uterus, so much of it as would allow the child's head to pass without breaking up its structure. This precaution is important for the preservation of the child. (*Vide* "Remarks on the Sources of Hemorrhage in Cases of Placenta Prævia, &c."—*Lancet*, 1847, vol. i. p. 219; also 1847, vol. ii. p. 302.)

The bandage, which, for the sake of distinction, I described (to my lecture class) as the "regulating bandage," was here of the greatest advantage. By one end of it being held and drawn obliquely downwards as the uterus lessened itself in size, this organ was effectually and uniformly supported, and kept in the axis of the pelvis.

CASE IX.—I was desired by Mr. F. to visit Mrs. —, September 20, 1836, who resided in Hulm. She was at the latter end of the seventh month of her third pregnancy. She had been taken with flooding; but there was nothing to account for the accident; it happened whilst she was sitting quiet and alone. She had no pain. Mr. F. said cold applications had been freely applied; cool air admitted into the apartment; and he had prescribed an acid mixture, with tincture of opium. He also mentioned that he had plugged the vagina, but notwithstanding all this, the blood continued to flow. From her appearance, she had evidently lost a considerable quantity of blood, for she looked ghastly pale, very faint, and her pulse very frequent and feeble.

On examination, I found a moderate sized piece of sponge lying loosely midway in the vagina, the blood readily escaping past it. I at once withdrew it, and satisfied myself the os uteri was undilated. We agreed to plug the vagina again, and to put on a bandage with a compress under it. Some brandy and water was taken; the yolks of two eggs with brandy were afterwards administered; and every other means adopted to raise and keep up the depressed vital power. A dose of tincture of opium was given. After effectually plugging the vagina, every precaution was used to show whether there was any external bleeding; but it was completely arrested; and we had full assurance there was no internal hemorrhage. There being no feeling of increased distension, or sinking tendency; on the contrary, her pulse improved; her skin felt warmer; and there was an improvement in the countenance.

After the lapse of a considerable length of time, I left her, and again visited her in the evening. She was much improved; had no discharge; she complained of throbbing and pain in the head; she had dozed, but had not soundly slept. She had not passed her urine, and complained of an uncomfortable

feeling from the sponges; but it was deemed right not to withdraw them. A spirituous lotion to be applied to the forehead. To take a draught with forty minims of the tincture of opium. We found her better in the morning; she had slept soundly. There had been no discharge; pulse less frequent and firmer. She complained less of her head; the plug was now withdrawn, and along with it only a little coagulated blood came away. She was now left under the care of her medical attendant, from whom I learned that she went on satisfactorily to the end of her pregnancy, and that her labour had propitiously ended. The child was alive.

Remarks.—This case is especially valuable in showing the difference between the use and the abuse of the plug. The woman doubtless was placed in a safe position, and after the arrest of the bleeding, went safely on to her full time by its right application; whilst, on the other hand, it is not improbable her life might have been lost by the ineffectual plan which had been adopted.

60. *Flooding before Delivery and on a New Principle and Method of Treatment of Placenta Prævia.*—Dr. BARNES read a paper on this subject before the Medical Society of London, Dec. 22, 1855. He passed in review the actual state of obstetric science and practice in relation to the pathology and treatment of placenta prævia. He showed that the prevailing belief was that so long as the delivery of the child was not effected there was no security against hemorrhage, and that hence the rule in practice of proceeding to forced delivery as early as practicable was almost universally inculcated, the only exception consisting in the more or less general substitution of the plan of totally detaching the placenta. The author thus showed that, while the practitioner was anxiously waiting for the moment when the dilatability of the cervix uteri would permit the passage of the hand, for the purpose of turning, the patient might perish of flooding; and that, therefore, in the most severe class of cases, those of central placenta, some other resource, some means of placing the patient in security against renewed flooding, before the full dilatation of the os, was eminently desirable. Dr. Barnes then explained the physiological course of a labour with placenta prævia, and the mode in which nature sometimes arrests the hemorrhage before the expulsion of the child. He illustrated, by the help of an ingenious and interesting diagram, that a stage of labour arrives when the recurrent contractions of the womb do not entail any further flooding; that the pains return in their usual course, with the usual effect of further dilating the os uteri and forwarding the labour, but without causing any further flooding; that the labour was in fact resolved into a natural one, and would be safely concluded by the natural powers. Reflection upon these cases had led Dr. Barnes to doubt the truth of the obstetric dogma, which declares that there is no security against hemorrhage so long as the presence of the liquor amnii or the child in the womb prevents full contraction. Dr. Barnes then unfolded the anatomical, physiological, and clinical facts which led him to the conclusion that, under proper restrictions, nature might in many cases be trusted to with more confidence than was generally believed. The clinical facts, he said, had come to him first, and led him to examine into the anatomical and physiological bearings of the case. He related cases in illustration, and quoted a commentary upon one of these cases from a memoir he had published (*Lancet*, 1847), in order to establish his priority in the enunciation of the views he now laid before the society; and adverted to the fact that he had, since the publication of that memoir, constantly taught, in his lectures on midwifery, the same doctrine: and stated that even the original of the diagram now exhibited, rudely sketched, was also figured in the memoir referred to. He had, therefore, believed his views to be original, and was surprised to find, in several numbers of the *Berlin Monatschrift für Geburtshunde* for the present year, a controversy between Dr. Cohen, Dr. Credé, and Professor Hohl, in which Dr. Cohen for the first time expounded similar views to his own, whilst Dr. Credé, referring to writings of 1853-4, also claimed them; and Professor Hohl assigned them to Dr. Zeitfuchs so far back as 1843. Dr. Barnes acknowledged with pleasure that Dr. Cohen's views of 1855 fully confirmed those put forth by himself in 1847; but he found in the writings of Credé and Zeitfuchs

nothing whatever to show that either had in the remotest degree possessed himself of the points in question. But Cohen had gone beyond the author in proposing a new operation based upon the physiological and clinical facts expounded. This operation consists in, 1, Determining the side of the uterus to which the smaller flap of the placenta is attached; 2, In rupturing the membranes and detaching the placenta from this half of its circumference; 3, Exciting uterine contraction; 4, Hooking finger over edge of placenta, tearing membranes from the freed border of the placenta; and, 5, In separating the placenta in a circumference of 190° to 200° . The greater half of the placenta, now freed from the dragging of the lesser half and membranes, is now drawn back, just as in placenta lateralis, with the uterus. From this moment there is no further danger. Cohen insists, like the author, on the impropriety of hastening labour unless urgent complications arise. Dr. Cohen refers to his experience to prove the efficacy of this method, but does not recite any cases in illustration. Dr. Barnes pointed out that the difference between his memoir and that of Dr. Cohen consisted simply in this: Cohen had, in 1855, carried forward the principle Dr. Barnes had enunciated in 1847, by proposing the artificial partial detachment of the placenta, instead of trusting, as Dr. Barnes had recommended in certain cases, the execution of this operation to the powers of nature. The author then quoted from Sir Charles Hill passages showing that the anatomical distribution and physiological action of the muscles of the uterus accorded with and explained the clinical facts observed in the course of intermissions and cessations of hemorrhage from placenta prævia as set forth by Dr. Barnes. The author then explained the mode and mechanism by which the hemorrhage in placenta prævia is arrested. The opening of the mouth of the womb, and the detachment of the placenta adhering to this part, are effected by the active contraction of the longitudinal muscles of the uterus. This active contraction shortens the cervix; when it intermits, a passive contraction goes on, which maintains or even increases the shortening of the cervix. This shortening necessarily compresses the torn mouths of the vessels, and checks the flooding caused by each successive detachment of fresh placenta, until the detachment has gone to the boundary line, beyond which point the further expansion of the cervix has no effect, and when all fear of flooding is at an end. It was not therefore necessary that the uterus should be empty in order to arrest the flooding. This arrest depended upon the contraction of the cervix, which went on, although the fundus and walls were prevented from contracting. Dr. Barnes submitted the following as some of the conclusions deducible from his researches:—

1. In cases of placenta prævia, the hemorrhage is sometimes arrested spontaneously before the complete detachment of the placenta, before the discharge of the liquor amnii, and consequently before the expulsion of the child or the pressure of its head against the cervix.

2. That this spontaneous arrest of the flooding is owing to the sealing up of the vessels torn by successive detachments of placenta, and the attainment of a stage of labour when no further detachment can take place until after delivery.

3. That dangerous and even fatal flooding sometimes occurs while the os uteri is still closed, and so undilatable as to render it impossible or inexpedient to have recourse to forced delivery.

4. That in such cases it is eminently desirable to possess some means of diminishing the hemorrhage until the hand can be passed through the os uteri.

5. The spontaneous or artificial detachment of the cervical portion of the placenta competes with two most formidable operations, dangerous to mother and child—forced delivery, and the total separation of the placenta. The new principle of treatment may, in many cases, supersede forced delivery altogether; since, the patient being secured against further flooding, to resort to turning when the flooding has ceased is an unnecessary proceeding, although the os uteri may admit of it. In many more cases, this principle will be the means of gaining the necessary time to admit of turning or other modes of forced delivery being performed with safety. In almost every case, it may supersede the practice of wholly detaching the placenta, since, the end in view being the

arrest of the flooding, it is better to detach only just so much of the placenta as will effect this end than by detaching all to destroy the child.

Dr. Barnes concluded by a particular exposition of the application of his views to the varieties of placenta prævia occurring in practice.

Dr. Murphy had no doubt that, in the case of a healthy woman, in whom the blood would coagulate rapidly, partial separation of the placenta would answer the desired purpose; but he thought it would not arrest the discharge in a feeble woman of anæmic character, in whom the blood would coagulate but slowly and imperfectly. In such a case, he should be afraid of profuse arterial hemorrhage from the uterus through the placenta itself.

Mr. I. Baker Brown readily subscribed to the propositions laid down by Dr. Barnes, which, he was satisfied, were based upon accurate observation. Of late years, he had been in the habit of following the plan which had been detailed. He had been lately called to a patient in labour who had been flooding all night. Finding it a case of partial placenta prævia, he ruptured the membrane, and detached a portion of the placenta; uterine action came on pretty strongly, and, after the first gush, which occurred invariably in such cases, the hemorrhage ceased, and the labour terminated naturally without an unfavourable symptom. He had seen many such cases terminating in the same manner. Much mischief was done by "meddlesome midwifery," and it was highly desirable to lay down laws, if possible, which should prevent the introduction of the hand into the uterus, and the frequent attempt to turn the child.—*Med. Times and Gaz.*, Dec. 22, 1855.

61. *Placental Presentation.*—The following example of this is related (*Association Med. Journal*, Jan. 12, 1856), by M. BEECROFT. Mrs. H., aged 34 years, a weak, delicate woman, had had three living children. I visited first time April 1st, 1855, when she stated that she had been flooding for a few days, but the discharge was not very great: she said she was about a month from her time. I prescribed rest and astringents; and there was not much discharge until the night of the 12th, when she parted with a large quantity. The hemorrhage had ceased when I saw her; and, on a vaginal examination, I found that the os uteri just permitted the introduction of the finger. I detected, as I thought, a placental presentation. As there was no hemorrhage going on, I recommended a continuance of the previous treatment. All went on well until the 14th, when hemorrhage returned with great violence, and reduced her so much that, on finding the os uteri dilated to about the size of a shilling, and lax, I thought that I could deliver her without any great difficulty, and at once determined to operate.

As anticipated, I did not find the difficulty very great. By inserting the fingers separately, the os uteri kindly dilated, and I passed my hand without great force into the uterine cavity, turned and carefully brought away the child, which was alive, but very feeble, its body dragging the placenta along with it, as, on separating the child, a portion of it was visible, protruding through the os externum.

The poor woman bore the operation very well; but the hemorrhage still continued, a constant draining away of blood going on; and, although pressure was constantly kept up in the abdomen by myself and pupil, and though the womb felt small and contracted, and notwithstanding the application of cold, the introduction of the hand within the uterine cavity (which was scarcely admissible), the administration of ergot, opium, brandy, etc., she gradually sank, and died in somewhat less than three hours from delivery.

I was allowed to make a *post-mortem* examination, and found the uterus not larger than usual, its anterior containing nothing; it was very pale, with the exception of a few inches round the circumference of the os uteri, which presented a raised pile of bright red capillaries, against which I supposed the placenta had been placed. Here, in one spot, there was slight ecchymosis; and, meandering in the submucous tissue, there was a moderate sized vein, though I could not detect its open mouth. The whole of the walls of the inferior portion of the uterus were very thin, and apparently deficient in muscular development, which I thought might arise from the position of the placenta interfering with its growth.

62. *Inversion of the Uterus following Parturition.*—Two cases of this rare and alarming accident are recorded in the *Association Medical Journal*, during the past year, one by Mr. W. B. BORHAM, and the second by Mr. C. LEONARD.

Mr. Borham's Case.—Mrs. H., aged 25, a fine strong woman, was delivered of her first child with the *funis twice twisted* round the child's neck, on January 31st, at 3 P. M., by Mrs. Collen, of Paddington Street, a midwife of considerable experience, after a natural labour of sixteen hours' duration. The pains occurred at rather longer intervals than usual, and were very forcing. About an hour after the child was born, I arrived in consequence of a hasty summons, when the patient presented the following state: The whole of the uterus, dragging a small portion of the posterior part of the vagina with it, was lying (like a scrotal hernia) without the os externum; it was covered with the deciduary and other membranes, and the placenta was entirely attached to its fundus. The patient was lying upon her back, with her knees bent up. She was pulseless, had difficulty of breathing, was cold, prostrated, and exhausted; in fact, in a state of collapse. The uterus had been exposed for three-quarters of an hour, and had become much contracted. I immediately detached the placenta by inserting the index finger of my right hand between it and the uterus, and then peeled off the membranes attached to it (those which spring from the placenta). The midwife now well greased my left arm and hand, with which I grasped the uterus, and returned it within the vagina. I then withdrew my hand a little, formed my fingers into a cone, reintroduced it, gently carrying the fundus before me until I had carried it up to a level with the patient's umbilicus, when I had the satisfaction of finding that the uterus had righted itself into its normal position in the pelvis. Its neck and os then commenced a gradual contraction on the fingers, when I carefully and steadily withdrew my hand, desiring the midwife at the same time to make pressure just above the pubes with her hand. After the withdrawal of mine, I had a saucer placed upon the lower part of the abdomen, and a bandage bound tightly over it.

During this time, which lasted about fifteen minutes, the patient was in a state of great exhaustion, and it was only by the aid of brandy that I could at all arouse her. I remained with her an hour, by which time she rallied considerably. I then left, prescribing for her a mixture of sulphuric acid, sulphuric ether, and camphor mixture, every two hours.

At ten o'clock I was again sent for, as a return was feared; but, on examining, I found it was only escaping, and I placed a sponge in the vagina.

Feb. 1. The patient remained in a very low state; the pulse was 150, and feeble; she was very thirsty; the discharge was moderate. She was ordered to continue the mixture.

2d. The pulse was 120. The patient was very excited, with peritonitis threatening. I ordered two grains of opium and five of calomel to be taken directly, and a saline mixture with prussic acid. The patient had a desire to micturate, and for the first time I desired her to be moved for that purpose, when she passed a great quantity of urine. She felt exhausted, but much relieved.

3d. The pulse was 110. She had had four very liquid stools in the night which produced faintness. She complained of much pain in the bowels, and was restless. The tongue was furred; there was a dragging or tearing pain in the bowels; the discharge was offensive and purulent. I ordered fifteen leeches to be applied to the epigastrium, and a poultice afterwards; I also prescribed gray and Dover's powders to be taken every three hours, and an effervescing saline draught with an excess of ammonia and prussic acid every four hours.

4th. She was better in every respect. The medicines were continued.

5th. She was progressing favourably.

She continued daily to get better. Her milk came at the ninth day; and I left her convalescent at the end of three weeks.

Remarks.—The midwife assured me that she did not use the slightest traction on the funis after the birth of the child, but that the uterus and attached membranes came out all at once with one pain about half an hour after the child

was expelled; and she, thinking it a "tumour," desired I might be instantly sent for. The funis being twice convoluted round the child's neck greatly reduced its remaining length, and doubtless this circumstance assisted considerably in dragging down the fundus, particularly as the pains were described as "very forcing;" the fundus thus becoming cup-shaped from unavoidable traction, the whole uterus soon became inverted and expelled.

There is a division of opinion as to the advisability of detaching the placenta from an inverted womb before returning it. Much must of course depend upon the contracted state of this organ; the length of time it has been exposed, etc.; but I think the placenta should always be separated before returning the uterus, if the latter be in a *contracted state*; for the less the substance to be returned the easier is it accomplished. Nor need we fear hemorrhage, for the uterus being inverted would drag down the uterine arteries into its inverted cavity; they would become intussuscepted, the uterus contracting upon them, forming an artificial tourniquet; and thus the supply to the uterine sinuses would be cut off (as was the case in this instance, for there was no hemorrhage during the operation of detachment). I therefore cannot think, with some authorities, that the patient is sure speedily to die of profuse hemorrhage if the placenta be detached. On the other hand, if the uterus were in a very relaxed state, and its os well dilated or easily dilatable, the hemorrhage might indeed be great if the placenta were partly detached; and in such a state there would be little difficulty in returning the whole mass, and perhaps it would be advisable to do so. But in a case like my own it was desirable to return the uterus with as little addition to it as possible, owing to the contracted state of that tissue.

That the uterus should be *immediately* returned there cannot be two opinions; or its contraction would soon prevent its return. The diminished size of the os would prevent the fundus from returning through it to its normal position, and strangulation would ensue, with its evil consequences. That peritonitis ensued in my case is not to be wondered at, considering how the peritoneum must have been interfered with by such a sudden revulsion of its tissue. The favourable termination of the case will certainly add a good practical confirmation to the opinion of those who are in favour of removing the placenta before returning the uterus. The uterus did not return with a sudden jerk, such as is usually ascribed to such cases.

Mr. Leonard's Case.—The subject of this case was a lady, aged 34 years, a stout healthy person, who had previously had one child, stillborn, after a tedious labour, from absence of pains, requiring the application of the forceps.

April 25, 1855. For the last two days there has been some slight watery discharge, but no pains till 2 P. M. to-day. Her ordinary medical attendant was sent for at 4 P. M., and found the membranes ruptured, the os uteri fully dilated, and the head descending, the presentation being natural. The pains continued strong till the child was born, about 8½ P. M. The child, a female, was very large, and living; no hemorrhage followed its expulsion. The funis was very short, twice round the neck, and so tightly strained, that it was impossible to relieve it, or even apply ligatures, the child being so closely confined to the body of the mother; it was therefore divided, when a portion was immediately retracted within the vagina. No pains followed; and, on examination in about twenty minutes, the insertion of the cord was felt very low down, and a strong expulsive effort was followed by the protrusion of a large mass, which proved to be the uterus inverted, with the placenta completely attached; this mass gradually increased in size, from hemorrhage occurring between the centre of the placenta and the uterus, the edges of the former remaining adherent. Whilst supporting this mass, it suddenly gave way about the centre, giving exit to a quantity of coagula and fluid blood. The patient now became very faint and exhausted.

At this time I saw her. On introducing the finger within the vagina, a hard mass was felt, which the finger could freely pass round, and which was the inverted vagina. I immediately detached the placenta, and the hemorrhage ceased, the uterus, which lay completely exposed, looking pale. I then re-

turned it within the vagina, and introducing my right hand, grasped the fundus uteri, and gradually pushed it up within the os, restoring it to its normal position.

I kept my hand firmly pressed over the uterus for some time, and very little hemorrhage occurred. A dose of ergot was administered, and brandy and gruel given freely, as she continued faint for some time. She subsequently made a good recovery, sitting up for the first time on May 19th.

This was clearly a case of unavoidable inversion, induced by the traction exerted upon the uterus by an originally short funis, further shortened by the circumstances before mentioned, and which no interference could have prevented.

A third case has recently (Jan. 18, 1856) been communicated to the Western Medical and Surgical Society of London, by Dr. ELLIS:—

The patient was a laundress, and confined with her seventh child, of temperate habits and good health. In her previous confinements, there had been generally some delay with the after-birth, which peculiarity had been well known to the midwife who attended her; in the present instance a stranger attended, and used force to remove the placenta. Sudden symptoms of collapse occurred, violent hemorrhage, pallor, delirium, and syncope. Mr. Ellis found her in such a condition, with a portion of the placenta unremoved. Upon examining her, he failed to find any tumour as usual in the abdomen, but the vagina was occupied with a firm mass, and the patient suffering the most severe expulsive pains. The symptoms were directly recognized as indicative of *inversio uteri*, and efforts were made to restore the organ. It was deemed expedient from the amount of blood which the patient had already lost to return the uterus with the adhering portions of the placenta attached to it; this was done, and the patient experienced a complete remission of all her symptoms, and from that time gradually recovered. At the present time she is quite well.—*Med. Times and Gaz.*, Feb. 16, 1856.

63. *Rupture of Umbilical Cord.*—Examples of a very short umbilical cord are sometimes met with, but a case we find related by M. SCHAEFFER, of Moselle, is certainly rare, in which the cord was so short (ten millimetres) that it was ruptured during delivery, causing hemorrhage and the death of the child. A woman, twenty-five years of age, healthy and well made, was seized with labour pains at six o'clock in the morning; when examined the os was thin and supple, dilated to the size of a shilling, the membrane protruding; the pains were energetic, but at long intervals. At ten o'clock the dilatation was almost complete, the membranes broke, and the head descended into the pelvis; here it remained in spite of the pains. It was then found, upon the doctor being sent for, that the head occupied the fourth position, the dilatation was complete, the pelvis well formed, and the external parts dilatable. After some time the doctor determined to employ the forceps and terminate the labour, as the head made no advance whatever. They were applied with care, but failed to overcome some resistance, which, however, after some time, suddenly ceased, and the head descended between the vulva; a strong pain soon delivered the head, with the face to the pubis, the rest of the body immediately followed. The child, a female, large and well formed, was very pale, and gave no signs of life, whilst its movements but a short time before were distinctly perceived. The cord was found torn off clean to the umbilicus; it was large and solid, its extremity presenting the remains of torn membrane. Every means were used in vain to reanimate the child; it was dead from loss of blood; the cord, which was never tied, did not furnish a single drop of blood. Upon turning to the mother she was found to be losing blood fast. No trace of a cord could be found, so the hand was introduced into the uterus and the placenta removed. When examined, it was found entire; but in the centre, where the cord should have been inserted, there existed a circular pit; the extremity of the cord which remained attached to the infant being applied to this, it was found it fit it exactly in size. Thus the cord could not have been more than ten millimetres in length.—*Dublin Hospital Gaz.*, Dec. 1, 1855, from *Gaz. des Hôpitaux*.

64. *Funis Presentation—Reduction.*—Dr. KEILLER communicated the following interesting case of this to the Obstetrical Society of Edinburgh.

Dr. K. was called to Mrs. C., who was in hard labour with her second child, and in whom a large loop of the cord was found presenting before the head. Dr. K. visited her without any delay, and found that, although a very extensive portion of the cord was protruding from the external parts, it had not as yet altogether ceased to pulsate. The head had not yet entirely passed through the pelvic brim, and injurious pressure on the prolapsed cord was only observed to occur during the pains, which were very frequent and severe—so much so as to render it not altogether free from danger to attempt what, however, was success, fully accomplished—*manual reduction of the cord.*

In the absence of any direct means of diminishing the (to the child) injurious expulsive force, or any instrumental means of hastening the passage of the head through the pelvis, Dr. K. proceeded, without delay, to return all the protruded portion of the cord above the presenting part of the child, which, he considered, cannot properly be accomplished without passing the hand up to the brim, and, if need be, displacing the head or raising it from the brim, *in the absence of a pain*, so as to make sufficient room for the complete reduction of the loop, which may have descended before or by the side of the head. After introducing the entire hand into the vagina, Dr. K. managed to get the cord reduced and kept up beyond the head, until the latter occupied the brim, so as to prevent any further descent of the cord.

The labour was soon afterwards completed, and the child (though for some time exhibiting symptoms of dangerous umbilical compression) was ultimately resuscitated.

Dr. K. stated that he had now saved several children by this mode of treatment, and which, he believed, would (like the present case) have been lost by other modes recommended by authors, such as the application of instruments (as the catheter, etc.), modes which he had on several occasions, but never successfully, tried. The most efficient instrument on all such occasions is that which we never require to send or wait for, viz: the HAND, by which we can in most cases succeed in pushing up the prolapsed cord, and ascertain that its reduction has been properly and efficiently accomplished.—*Edinburgh Med. Journ.*, Nov. 1855.

65. *On the use of Potassio-Tartrate of Antimony in the form of Enema, in Obstetric Practice.* By JAMES YOUNG, M. D.—In a primipara, æt. 31, and of full habit, the pains had been strong and frequent for six hours, the os uteri was thin in the edges, hard and unyielding; and the external parts contracted and tender. Sixteen ounces of blood were taken from the arm, eight grains of Dover's powder were administered, and fomentations applied to the external parts. Under these remedies the pains ceased for six hours. When they returned they affected the back, and were frequent and regular. After continuing for six hours longer the os uteri was still thin in the edges, hard, and not dilated more than the size of a shilling; the external parts narrow and contracted.

Ergot was inadmissible under such circumstances. Reasoning from analogy on the effects of tartar emetic as a local irritant, when employed in the form of lotion or ointment, I conceived that temporary local stimulation of the uterus might be induced more directly from the rectum than through the medium of the stomach, and that subsequent relaxation might be produced in the surrounding parts without the production of nausea and general prostration. One grain of tartar emetic dissolved in six ounces of warm water and soap was given in the form of enema, not so warm as when given for the purpose of clearing out the bowels, that it might be longer retained, and to avoid being deceived by the relaxing effects of heat. One hour after the enema was given, there was a decided improvement on the rigid os uteri. The vagina became soft, and secreted mucus freely. The os uteri became thicker and softer in the edges, and the external parts began to relax, and dilate. At the end of one hour and twenty minutes after the antimonial enema was administered the delivery was easily accomplished.

Encouraged by the result of this case, I selected for after-experiment primiparae, particularly the robust and plethoric, where most difficulty was to be anticipated.

In eight cases where the pains were weak, and the parts unyielding, it was of great benefit in quickening the pains, relaxing the parts, and expediting delivery, saving much suffering and protracted attendance.

It can then be used with safety in the early stages of labour, although the os uteri be thin in the edges and the soft parts firm and contracted. In multiparae, when the parts are normal, the os uteri dilating slowly, and the pains weak, it will sharpen the latter, and thus shorten the duration of labour. Flooding did not occur in any case, nor was nausea or vomiting more troublesome than in the average of ordinary deliveries. In one case (multipara) there was pain in the abdomen after the placenta was removed, but not more than is often met with in ordinary after-pains. A cup of good tea was given to the mother as an antidote, and at the same time to refresh her. Being a considerable distance from my residence I left an opiate diaphoretic to be taken if the pain in the abdomen should return. On my next visit I was told that it was not necessary. None of the cases required any particular treatment.—*Monthly Journ. Med. Sci.*, Jan. 1856.

[Dr. HORATIO R. STOKER relates (*Boston Medical and Surgical Journal*, February, 1856) a case of protracted first stage of labour from rigidity of os uteri, in which the above mode of treatment seemed to have the best effects.]

66. *Use of Chloroform in Childbirth.*—Dr. MURPHY read a paper on this subject before the Medical Society of London, Jan. 26, 1856. He stated, in commencing, that he had not the slightest reason to deviate from the opinion he expressed, in 1848, of the extreme value of chloroform in relieving the sufferings of the parturient female, and in promoting her recovery. The author directed the attention of the Society to three points worthy of their reflection. 1st. The progressive effect of chloroform on the nervous system, from which he derived the safety of its application. 2d. The difference that exists in its effect on different constitutions, showing the importance of a guarded use of it. 3d. The remarkable disparity in the amount of suffering from the pains of labour which women experience when going through what is called "a natural labour," which proves the infinite value of this agent, not only in assuaging an amount of agony which overcomes the fortitude of women of the strongest resolution, but also in promoting their more rapid recovery. He mentioned, as the result of his own observation, that the nerves of sensation were first affected, and that pain may be relieved before chloroform acts on the brain, or impairs consciousness. The brain then becomes engaged, and mental power disturbed, causing giddiness, rambling, and ultimately sopor. At the same time, or nearly so, the reflex nerves manifest its influence. He did not wish to pass what he might call the first stage, the relief of pain, because he thought it quite sufficient for ordinary obstetric purposes. The profound stertorous sleep required for surgical operations he did not think necessary in midwifery. He described the effect of chloroform on a patient when used in this way, and for this purpose preferred inhalation by the mouth alone, as being safer. Such use of this anæsthetic might be considered inefficient, because the patient still suffers some pain. He (Dr. Murphy) found it quite the contrary, because the pain is as nothing compared with what she otherwise would have endured, and her recovery is always rapid. She does not suffer from the exhaustion which follows a severe labour, rendering the patient restless, and obliging the practitioner to employ opium to procure sleep. He looked upon chloroform, in this respect, as the most valuable assistant in the management of labour that has ever been discovered. The author alluded to the difference in the effect of chloroform on different constitutions. All women are not equally susceptible to its influence. With some, a few inhalations are sufficient to control all pain, and even put them to sleep; while others continue to inhale for a long time before they experience any relief. In these instances caution is necessary, which is very easily exercised if chloroform is given in the gradual manner stated. It is necessary to watch its action on the reflex nerves, and to withdraw the vapour

when they become affected. He (Dr. Murphy) thought the respiration and action of the uterus especially should be attended to. It is of importance to watch for stertor during the sleep of the patient, and not to mistake the cause of the short and feeble pains. The uterus is not paralyzed, as has been supposed; but the aid which it receives from the reflex muscles is diminished. In this, as in the former case, the sound sleep which follows labour perfectly restores the patient. The third variety is rarely met with, and is very perplexing. He related a case where chloroform seemed to increase the pains, although in the intervals the patient was in a profound sleep. When stertor was observed, he withdrew the vapor. The patient was safely delivered, slept for some time, awoke, and had no recollection of anything that occurred from the time she inhaled the chloroform. He attributed this effect to a kind of dream. What in other patients would cause incoherent rambling, here exaggerated the one idea, pain. The remarkable difference in the amount of suffering which women experience when going through natural labour proved the value of chloroform most clearly. Some suffer comparatively little; at no period of labour are the pains beyond their powers of endurance; chloroform is not, therefore, called for. But there are cases of a very opposite character, in which the patient is acutely sensitive, where even slight pains cause great distress, and where the more powerful pains become so intolerable, and cause such an amount of suffering, that the action of the uterus is often suspended. It is in such instances that the value of chloroform shines the most conspicuously, and it is here that the practitioner will find its aid most clearly unquestionable. He concluded by apologizing for an imperfect paper. He avoided entering upon, or replying to, the objections offered to its use, not only because he had already fully examined them, but he was unwilling to make this valuable agent a kind of battle-field for the collision of strong and decided opinions. It was in the power of every one to arrive at a just conclusion from their own experience. He entreated those who would follow this rational mode of investigation not to be led away from it by *post hoc ergo propter hoc* arguments; not to believe that all the well-known casualties of labour are caused by chloroform, because this agent happens to be administered; not to take second-hand histories of its effect, but as the members of a highly scientific profession are bound to do, to take nothing for granted, but examine and judge for themselves. He thought that there was nothing singular in the reception it has as yet met with in this great metropolis. It took fifteen years before gaslight triumphed in London. The light shone conspicuously wherever it was introduced, but it only made more manifest the prejudices and apprehensions of the public. It was declared to be most offensive, most dangerous; houses were blown to atoms by explosions of the gas, and the event was recorded with all the avidity of a death from chloroform. Still it continued to be used by its advocates; they gradually increased; at length its use became general, explosions were only recorded as unfortunate accidents, and now gaslight has obtained its triumph. It gives not only light, but heat; it supplies the place of coals as well as candles, and every house in London considers this noisome and most dangerous agent an indispensable requisite. He (Dr. Murphy) anticipated from chloroform the same career. It is now under its trial; but as it becomes better understood will be more generally used, and ultimately become as indispensable in the lying-in apartment.

Dr. CRISP stated that Dr. Murphy had made no allusion to the influence of the vapour, when inhaled by the parturient mother, on the new-born child. Such influence, he could not but believe must be highly deleterious; however administered, chloroform could never be depended upon, and its indiscriminate use in midwifery was greatly to be deprecated.—*Med. Times and Gaz.*, Feb. 2, 1856.

67. *Puerperal Peritonitis in the Fetus and new-born Child.*—M. PAUL LORAIN, in a thesis on puerperal fever, has traced the co-existence of peritonitis in the infant with puerperal fever in the mother. His opportunities of investigation were afforded him in the Maternity Hospital, in Paris, of which institution he was for some time an *interne*.

It is a striking fact, which indeed has not altogether escaped attention, that the greatest amount of mortality among newly born children is coincident with attacks of puerperal fever. M. Lorain found that out of 106 stillborn children, 20 had died from mechanical injury, or accident during labour; 2 from pemphigus, and 10 from intra-uterine peritonitis. Of 256 new-born children, who died at periods varying from a few hours to a few days after birth, 63 were premature and nonviable; and of the remaining 193, 50 died of peritonitis, either simple or complicated with erysipelas, meningitis, abscesses, etc., 10 having all the symptoms of putrid infection. Further, he found that, in 30 deaths among newly born children from peritonitis, the mother also died from the same disease in 10 cases; while in 5 other cases the mothers had had puerperal affections, but had recovered.

Peritonitis is the only manifestation of the disease in the fœtus. In newly born children, it has been observed in the form of peritonitis, either simple or complicated with erysipelas, inflammation of the umbilical vein, meningitis, etc., or in the forms of meningitis, pleurisy, abscesses, gangrene, etc.; but the most common form is peritonitis. The mother and child may die of different forms of the disease; for instance, the mother may have meningitis, the infant peritonitis; the infant may die of peritonitis, and the mother of purulent infection, etc.

The principal characters of puerperal peritonitis in newly born children are thus described by M. Lorain:—

The face expresses suffering; the abdomen is tense, gives a tympanic sound, and appears very tender on pressure. Respiration is shallow, short, and frequent. The skin is yellow. The child cries incessantly. It has vomiting, and a bilious fluid escapes from the mouth and nostrils. The pulse is small, and much accelerated; there is generally constipation. The child refuses the breast, especially towards the end of life.

The progress of the disease is very rapid; it generally terminates (always fatally) in three or four days. Most of the children die in ten days after birth. M. Lorain observed only one which was a month old, and another which lived forty days.

One of the most important forms of the disease is the adynamic, characterized by torpor, somnolency, hemorrhage from serous and mucous surfaces, and scorbutic patches on the skin. In these cases, death sometimes occurs within forty-eight hours after birth.

The most usual complications of puerperal peritonitis in the infant are erysipelas, phlegmon, meningitis, and sometimes pleurisy. The symptoms of some of these, especially meningitis, occasionally supersede those of peritonitis.

The only premonitory symptoms are the restlessness of the child, and its plaintive cries. The disease advances so rapidly, that it is often first suspected only when it has attained its height.

The *post-mortem* appearances are characteristic. The jaundice, the great enlargement of the abdomen, the escape of green fluid from the nostrils, and the rapid putrefaction, render the bodies of those who have died of infantile peritonitis easily recognizable. The peritoneum contains an effusion of serous or sero-sanguineous fluid, rendered turbid by pus and false membranes; and the tunica vaginalis often contains effusions of the same nature. The false membranes have the same microscopic characters as in ordinary peritonitis; the pus is small in quantity. The spleen is often double its normal size; this has also been observed in peritonitis in the fœtus. The tissue of the organ presents no marked change. In some rare cases, there has been a morbid change in the liver. No change has ever been observed in the lymphatic system.

Of all the accompanying lesions, that of the umbilicus is most worthy of note. As soon as the febrile state supervenes, the umbilicus is placed in the condition of an amputated stump. The wound becomes gray and dirty, and does not tend to heal; the neighbouring vessels also suffer, and the coagula which form in them soften and break up. M. Lorain does not regard the affec-

tion of the umbilicus as the cause of the peritonitis.—*Gazette des Hôpitaux*, October 20th, 1855.

In relation to the above paper, Dr. BELLETRÉ, of Abbeville, has communicated the following facts to the *Gazette des Hôpitaux*, for November 10th, 1855:—

During an epidemic of puerperal fever which prevailed at Abbeville, in 1851, and in the beginning of 1852, fourteen women died within a few months: nine between the sixth and twelfth day after delivery, five before the end of the third day. In the first category, all the children born enjoyed good health during the earlier weeks after birth. In the second category, there was one abortion at three months, and one child was born dead; three were born alive, but although strong and healthy, they did not live longer than from 43 to 68 hours. Two were seized, six or seven hours after birth, with marked symptoms of peritonitis. The mothers had already perceived in themselves some symptoms of the disease towards the end of pregnancy. In both cases the umbilical cord was dry, and of a dull gray appearance. The third patient fell ill on the day after birth; it had at first peritonitis, which was soon followed by pleurisy, with adynamic symptoms.

M. Belletré also calls attention to the fact that an epidemic of puerperal fever appears to exercise some influence on non-pregnant females—a fact which has, indeed, been noticed by other observers. He relates three cases of peritonitis occurring, during an epidemic of metria, in females who were not pregnant. In one case the disease appeared after suppression of the catamenia. The other two patients had slight metrorrhagic attacks at intervals of a few months, ordinarily lasting a few weeks; and it was during one of these attacks that they were attacked with peritonitis. One of these two patients died, as did also the former one.—*Association Med. Journal*, Jan. 12, 1856.

68. *Functional Derangement of the Liver as a Cause of Uterine Disease.*—

Dr. MACKENZIE read a paper on this subject before the Medical Society of London, Dec. 8, 1855. He began by drawing attention to the importance of studying the constitutional origin of uterine diseases, believing them to be far more frequently dependent upon constitutional than local causes. In a series of papers published by him in 1852, he had dwelt upon the origin of uterine disease from disturbed states of the nervous system, when the exciting cause makes its impression upon the nervous centres, such as settled grief or anxiety, and impoverished or unhealthy states of the blood. He now proposed to resume the subject, by considering another mode in which the nervous system might be unfavourably impressed, and uterine disease equally result, viz: from severe or persistent disease or derangement of any of the more important organs of the body; and as none illustrated the principle more fully than the liver, both from its extensive sympathies and great liability to disorder, he had selected it as the subject for the evening's paper. Having indicated the general influence exercised by the liver upon all the processes of health and disease, he referred to its special influence upon the uterus, founded upon the intimate sympathy subsisting between these organs, etc., and showed, from statistical data, how frequently derangements of these organs co-exist. Contrary, however, to prevailing opinions, the facts he had collected clearly proved that the hepatic disease generally preceded, and probably occasioned the uterine, when both co-existed. He believed that it might do so in the three following ways: First, through the medium of the direct sympathy subsisting between the uterus and the liver; secondly, through the derangement of the assimilative processes, which invariably results from chronic hepatic disturbance; and, thirdly, through the debility of the nervous system, which, sooner or later, inevitably follows upon long-continued derangement of any important organ of the body. From the first of this series of causes could be deduced many uterine affections of a variable and casual character, such as hysteria, leucorrhœa, and menstrual irregularity; from the second, many functional and structural lesions of the uterus of a more fixed and persistent character, such as congestion and inflammatory conditions, indurations, hypertrophies, fibrous growths, certain forms of leucorrhœa, and rheumatic hysteria; from the third, a predisposition to uterine disease generally, the precise character and

nature of which would vary with the nature of the exciting and other occasional causes. In connection with this part of the subject, attention was directed to the generally depressed state of the nervous system which accompanies the majority of uterine affections; and this, from various facts referred to by the author, was regarded by him as being rather due to the coincident hepatic than uterine complaint. The latter had, however, received greater attention; because, whilst the liver was an organ of dull sensibility, the uterus, on the other hand, had extensive sympathies with the sensorial parts of the nervous system, and its functional and structural conditions admitted of the closest scrutiny. The author then proceeded to show how the pathological history of the more common uterine affections supported the views he had submitted to the Society, and concluded by adverting to the practical conclusions to be drawn from them. The treatment of these cases should, in his opinion, be conducted with reference to three principal indications: First, to restore the tone and functional activity of the liver by the persevering employment of small, undebilitating doses of mercury, keeping strictly within the tonic and stimulating range of the remedy; secondly, to improve the assimilative functions generally, by careful attention to dietetic and hygienic measures, together with various therapeutical means, which were cursorily alluded to; thirdly, to restore the tone and vigour of the nervous system, which had been impaired by the long continuance of hepatic derangement. The general means adapted to this purpose were treated of, and the author took occasion to lay before the Society some observations upon the remedial powers of amorphous phosphorus in certain affections of the uterine organs, attended with weakness and irritability of the nervous system. He had given it a large and extensive trial in these cases, and in some had found it remarkably beneficial. It could be given in doses averaging from ten to thirty grains, and, although insoluble, it readily diffused itself in water or any aqueous vehicle, and could be conveniently given in that way. It appeared to act as a direct tonic or stimulant upon the uterine system, and, when properly prepared, could be given without any risk or danger. He had given it with much success in certain cases of amenorrhœa, hysteria, and passive menorrhagia. He had known pregnancy to supervene upon its employment, after a lengthened period of sterility subsequently to marriage, and had found it useful in correcting the tendency to miscarriage when dependent upon morbid weakness or irritability of the uterine organs. Under these circumstances, he thought it worthy of a more extended trial, and recommended it confidently to the notice of the members of the Society.

With regard to the employment of ordinary phosphorus, Dr. M. had made many trials of it, and it was only when he had found it to be a very hazardous and dangerous remedy that he had been led to make trial of the amorphous phosphorus.—*Lancet*, Dec. 15, 1855.

69. *Tinctura Ferri Murialis in Uterine Hemorrhage*.—Dr. VON SCHREIER, of Hamburg, places the greatest reliance on this preparation as a styptic, in cases of uterine hemorrhage. He affirms that he has never lost a case in which he has had recourse to its use. He employs it in the form of injections, containing from 50 to 100 drops to ℥ij of water. In cases of placenta prævia, he inserts a sponge-tent, saturated with the tincture, as high into the os uteri as possible, and by this means he not only arrests the hemorrhage, but after a period of from six to twelve hours, the os is so much dilated that artificial delivery can be accomplished with ease.—*Edinburgh Med. Journ.*, Jan. 1856, from *Monat-Schrift für Geburtskunde*. Bd. v. 1855.

70. *Death of a Fetus from Smallpox*.—M. BLOR relates the following example of this to the Société de Biologie.

The mother of the little patient, previously in good health, and six months advanced in her second pregnancy, was attacked with smallpox, on the 17th of July, 1854. She had not been vaccinated, but the attack was not severe, and she recovered without any secondary fever. During her illness, the movements of the child were more continuous than they were before, but not so energetic; during her convalescence the same movements became more and more feeble, until they ceased altogether, and the child was felt to fall towards the side on

which the mother happened to lay. Two days after this cessation labour came on unexpectedly, and the mother removed to the "Clinique d'Accouchements," where she was presently delivered of a male fœtus of the six and a half or seventh month, covered with pustules of smallpox. This fœtus presented unequivocal evidence of having been recently alive, and there was every reason to believe that it had had smallpox at the same time as its mother, and that it had died from this cause.—*Gaz. Med. de Paris*, Nov. 25, 1854.

MEDICAL JURISPRUDENCE AND TOXICOLOGY.

71. *On the Detection of Strychnia*.—By MARSHALL HALL, M. D. The detection of strychnia as a poison is, at this moment, of deep public interest.

When the chemical test fails, there remains, I think, another—the *physiological*. Having long studied the effects of strychnia on the animal economy (I have sent two papers on this subject to the Institute of France¹) I am persuaded that these effects on the *most excitable* of the animal species are at once the most delicate and specific tests of this poison.

I have just performed two experiments, and only two, for want of materials for more.

I requested Mr. Lloyd Bullock, of Hanover Street, to dissolve one part of the acetate of strychnia in one thousand parts of distilled water, adding a drop or two of acetic acid.

I then took a frog, and having added to one ounce of water 1-100th part of a grain of the acetate of strychnia, placed the frog in this dilute solution. No effect having been produced, 1-100th of a grain of the acetate was carefully added. This having produced no effect, in another hour 1-100th of a grain of the acetate was again added, making the 3-100ths, or about the thirty-third part of a grain. In a few minutes, the frog became violently tetanic, and though taken out and washed, died in the course of the night.

I thus detected, in the most indubitable manner, one thirty-third part of a grain of the acetate of strychnia. It appeared to me that had more time been given to the experiment, a much minuter quantity would be detectible.

I placed the second² frog in one ounce of distilled water, to which I had added the 1-200th part of a grain of the acetate of strychnia. At the end of the first, the second, and the third hours, other similar additions were made, no symptoms of strychnism having appeared. At the end of the fifth hour, the frog having been exposed to the action of 1-50th part of a grain of the acetate of strychnia, tetanus came on, and under the same circumstances of removal and washing, as in the former experiment, proved fatal in its turn.

I thus detected 1-50th part of a grain of the poisonous salt by phenomena too vivid to admit of a moment's doubt; the animal, on the slightest touch, became seized with the most rigid general spasmodic, or, rather, tetanoid rigidity. And this phenomenon, alternating with perfect relaxation, was repeated again and again.

As the nerve and muscles of the frog's leg, properly prepared, have been very aptly designated as galvanoscopic, so the whole frog, properly employed, becomes strychnoscopic.

In cases of suspected poison from strychnia, the contents of the stomach and intestines, and the contents of the heart, bloodvessels, etc., must be severally and carefully evaporated, and made to act on lively frogs just taken from the ponds or mud. I need scarcely say that, taken in winter, the frog will prove more strychnoscopic than in summer, in the early morning than in the evening.

The best mode of performing the experiment also remains to be discovered, with all its details and precautions; an inquiry into which I propose to enter shortly. Meantime, this note may not be without its utility.

Princes Street, Hanover Square, January, 1856.

¹ See the Comptes Rendus for June, 1847, and February, 1853.

² These frogs were not fresh from the pools.